

Mr. Larry Miller  
Geneva Manufacturing Corporation  
P. O. Box 219  
Geneva, IN 46740

Dear Mr. Miller:

Re: Exempt Construction and Operation Status,  
001-14796-00046

The application from Geneva Manufacturing Corporation, received on August 20, 2001, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following emission unit, to be located at Geneva, Indiana 46740, is classified as exempt from air pollution permit requirements:

- (a) Controlled pyrolysis cleaning furnace to clean organic residues such as paint, grease, plastic and varnish from metal parts, with a maximum capacity of 10 pounds of waste per hour, using afterburner as control.

The following conditions shall be applicable:

- (1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:
  - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

- (2) 326 IAC 4-2-2 (Incinerators: requirements)

Pursuant to 326 IAC 4-2-2, the cleaning furnace shall:

- (1) consist of primary and secondary chambers or the equivalent;
- (2) be equipped with a primary burner unless burning wood products;
- (3) comply with 326 IAC 5-1 and 326 IAC 2;
- (4) be maintained properly as specified by the manufacturer and approved by the commissioner;
- (5) be operated according to the manufacturer's recommendations and only burn waste approved by the commissioner;
- (6) comply with other state and/or local rules or ordinances regarding installation and operation

of incinerators;

- (7) be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented;
- (8) not emit particulate matter in excess of five-tenths (0.5) pounds of particulate matter per one thousand (1000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air;
- (9) not create a nuisance or a fire hazard;

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

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cc: File - Adams County  
Adams County Health Department  
Air Compliance - Dave Rice  
Permit Tracking - Janet Mobley  
Technical Support and Modeling - Michele Boner  
Compliance Data Section - Karen Nowak

# Indiana Department of Environmental Management Office of Air Quality

## Technical Support Document (TSD) for an Exemption

### Source Background and Description

**Source Name:** Geneva Manufacturing Corporation  
**Source Location:** U. S. 27 South, Geneva, IN 46740  
**County:** Adams  
**SIC Code:** 3995  
**Operation Permit No.:** 001-14796-00046  
**Permit Reviewer:** Madhurima D. Moulik

The Office of Air Quality (OAQ) has reviewed an application from Geneva Manufacturing Corporation relating to the construction and operation of a controlled pyrolysis cleaning furnace.

### Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) electrostatic spray paint booth, installed in 1953; and
- (b) One (1) deco flow coater, installed in 1986.

### New Emission Units and Pollution Control Equipment

The source consists of the following emission units and pollution control devices:

- (a) Controlled pyrolysis cleaning furnace, with a maximum capacity of 10 pounds of waste per hour, using afterburner as control, and exhausting to stack No. 6.

### Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) SSOA 001-9137-00046, issued on November 12, 1997.

The new cleaning furnace at the source shall be granted an exemption. The existing surface coating facilities shall be subject to the conditions in the existing Source Specific Operating Agreement (SSOA).

### Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
# 6	Cleaning Furnace	-	0.833	450-650	1400-1600

## Enforcement Issue

There are no enforcement actions pending.

## Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on August 20, 2001.

## Emission Calculations

See Appendix A of this document for detailed emissions calculations.

## Potential To Emit of Cleaning Furnace

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	negligible
PM-10	negligible
SO <sub>2</sub>	negligible
VOC	negligible
CO	0.3
NO <sub>x</sub>	0.3

- (a) The potential to emit (as defined in 326 IAC 2-7-1 (29) of PM, PM<sub>10</sub>, is less than five (5) tons, and less than ten (10) tons per year of other criteria pollutants, as well as less than twenty-five (25) tons per year of CO. Therefore, the source is not subject to the provisions of 326 IAC 2-5.

## County Attainment Status

The source is located in Adams County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule

applicability relating to the ozone standards. Adams County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

- (b) Adams County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

### **Federal Rule Applicability**

- (a) The cleaning furnace at this source processes less than fifty (50) tons per day of material. Therefore, the source is not subject to the New Source Performance Standards for incinerators (NSPS)(40 CFR 60.50, Subpart E).
- (a) The cleaning furnace does not process hazardous wastes. Therefore, the cleaning furnace is not subject to the Hazardous Air Pollutants Standards (NESHAPs) 40 CFR 63 Subpart EEE (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors).

### **State Rule Applicability - Entire Source**

#### **326 IAC 5-1 (Opacity Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

### **State Rule Applicability - Individual Facilities**

#### **326 IAC 6-3-2 (Process Operations)**

Incinerators are exempt from rule 326 IAC 6-3-2. Therefore, the cleaning furnace is not subject to this rule.

#### **326 IAC 4-2-2 (Incinerators: requirements)**

Pursuant to 326 IAC 4-2-2, the cleaning furnace shall:

- (1) consist of primary and secondary chambers or the equivalent;
- (2) be equipped with a primary burner unless burning wood products;
- (3) comply with 326 IAC 5-1 and 326 IAC 2;
- (4) be maintained properly as specified by the manufacturer and approved by the commissioner;
- (5) be operated according to the manufacturer's recommendations and only burn waste approved by the commissioner;

- (6) comply with other state and/or local rules or ordinances regarding installation and operation of incinerators;
- (7) be operated so that emissions of hazardous material including, but not limited to, viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented;
- (8) not emit particulate matter in excess of five-tenths (0.5) pounds of particulate matter per one thousand (1000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air;
- (9) not create a nuisance or a fire hazard;

### **Conclusion**

The construction and operation of this cleaning furnace shall be subject to the conditions of the attached proposed Exemption 001-14796-00046.

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****Company Name: Geneva Manufacturing Corporation****Address City IN Zip: Geneva, Indiana 46740****CP: 001-14796****Pit ID: 001-00046****Reviewer: Madhurima D. Moulik****Date: Sep 10, 2001**Heat Input Capacity  
MMBtu/hrPotential Throughput  
MMCF/yr

0.8

6.8

Pollutant						
Emission Factor in lb/MMCF	PM* 7.6	PM10* 7.6	SO2 0.6	NOx 100.0 **see below	VOC 5.5	CO 84.0
Potential Emission in tons/yr	0.0	0.0	0.0	0.3	0.0	0.3

\*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****HAPs Emissions****Company Name: Geneva Manufacturing Corporation****Address City IN Zip: Geneva, Indiana 46740****CP: 001-14796****Plt ID: 001-00046****Reviewer: Madhurima D. Moulik****Date: Sep 10, 2001****HAPs - Organics**

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	7.128E-06	4.073E-06	2.546E-04	6.110E-03	1.154E-05

**HAPs - Metals**

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	1.697E-06	3.734E-06	4.752E-06	1.290E-06	7.128E-06

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.